

REMARKS

By the present amendment, claim 1 has been amended to clarify the invention.

Claims 1-7 remain pending in the application.

In the Office Action, the Examiner rejected claims 1-7 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 3-7 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 5,794,065 to Hatakeyama et al.

In view of the arguments that follow, Applicants respectfully traverse the Examiner's rejection of claims 1 - 7.

Rejection Under 35 U.S.C. § 112

The Examiner rejected claims 1-7 under 35 U.S.C. § 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner alleged that in claim 1, there appears to be a grammatical error in the last paragraph, and it is not clear what is the use of the packet generated by the packet generation means and what is the input to the packet generation means.

Applicants respectfully submit that the packet generation means does not have an input (See Figure 3). The packet generated by the packet generation means in the data driven information processor, where input data is stored in the packet, consists of a destination field and command field (See for example page 2, paragraph [0005] of the

specification). The packet is processed in an input/output control unit. The generated packet is indisputably used in the constituent elements of the data driven information processor of claim 1.

Applicants further submit that claim 1 has been amended to clarify the grammatical error. Accordingly, Applicants respectfully request the withdrawal of the rejection of claim 1.

The Examiner alleged that performing arithmetic operation according to command information . . . based on the packet inputted . . . and the data flow program is ambiguous and the packet inputted from the outside lack antecedent basis. Applicants respectfully submit that claim 1 has been amended to clarify the ambiguity and to have proper antecedent basis. Accordingly, Applicants respectfully request the withdrawal of the rejection of claim 1.

The Examiner also alleged that it is not clear what is the use of the destination information. Applicants respectfully submit that the destination information (7) is one of a pair of information written in the data flow program stored in the program storage unit (2) (See Fig. 7). The program storage unit (2) reads a pair of destination information (7) and command information (8) from the data flow program by address specification based on node information in the destination field of the data packet (See Fig. 6) from the input/output control unit (1). Then the program storage unit (2) stores the destination information (7) and the command information (8), respectively, in the destination field and command field of the data packet and output the data packet to the pair data detection unit (3). The destination information in the data packet comprises, as shown in Fig. 6, data

memory information used to specify an address in a data memory (6) and node information used to specify an address when reading a data flow program (See paragraphs [0005], [0008]).

In view of the above reasons, Applicants respectfully submit that the rejection of claim 1 should be withdrawn.

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1 and 3-7 under 35 U.S.C. §102(b) as being anticipated by Hatakeyama et al. The rejection is respectfully traversed.

Applicants amended claim 1 recites a data driven information processor, comprising: a data storing means, a program storing means for reading a subsequent pair of destination information and command information from a data flow program stored in the program storing means that includes a plurality of pairs of destination information and command information and writing them to a packet, a pair data detecting means for uniting data in two packets having the same destination information into one packet, an arithmetic processing means for performing arithmetic processing on data written in the packet according to command information written in the packet and which performs information processing based on a packet inputted from outside the data driven information processor and the data flow program stored in the program storing means, and a packet generating means that includes an oscillating means for generating a packet at an oscillation rate of the oscillating means.

The Examiner alleged that Hatakeyama et al. teach the recitations of claim 1. Specifically, the Examiner alleged that Hatakeyama et al. teach a packet generating means that has an oscillation rate of the oscillating means, by referencing col. 7, lines 37-40.

Applicants respectfully submit that the invention of Hatakeyama et al. do not disclose or teach a data driven information processor with “a packet generating means that includes an oscillating means for generating a packet at an oscillation rate of the oscillating means,” as recited in claim 1.

Hatakeyama et al. disclose a data driven information processor that includes a data packet forming portion externally receiving input data and an input clock. Data in Hatakeyama et al. is transferred between processing portions in the data packet forming portion. Pipeline registers and transfer control elements transfer data according to transfer control signals based on the input clock. The transfer of data in the data packet forming portion according to transfer controls signals based on the input clock is not analogous to “generating a packet” that is inputted in the input/output control unit at an oscillation rate.

In the present invention, the packet generation unit does not have an input that receives input data and an input clock (see for example, Figure 3.). The generation packet unit generates a data packet to input to the input/output control unit at an optimize oscillation rate. Clock generators are provided internally in the generation packet unit with frequencies that are divided by frequency dividers to constitute an oscillation rate. The oscillation rate provides a generation rate for the generation packet unit that generates a data packet outside the data driven information processor. Therefore, the data packet can be processed in the data driven information processor at a frequency different from the

input frequency of the data packet. However, Hatakeyama et al. merely transfer data between processing portions in the data packet forming portion according to transfer control signals and do not generate a data packet to be inputted into the input/output control unit at an oscillation rate.

In view of the above reasons, Applicants respectfully submit that Hatakeyama et al. do not disclose or teach “a packet generating means that includes an oscillating means for generating a packet at an oscillation rate of the oscillating means.”

Applicants also respectfully submit that the invention of Hatakeyama et al. do not disclose or teach “a data storing means”, as recited in claim 1.

Hatakeyama et al. disclose a data driven information processor program that includes an input data packet forming portion that externally receives input data and an input clock, and form a data packet having a tag including a generation number, a destination number, instruction information and a constant value. A program storing portion is included in the data driven information processor for storing a data flow program and reading out instruction information and a next destination information from the stored data flow program according to destination information included in an applied data packet.

Applicants respectfully submit that there is nothing in the invention of Hatakeyama et al. that disclose a data storing means. The data storing means in the present invention functions similarly but is a separate storage from the program storage unit. The program storage unit of the present invention is a program storing means, which stores a data flow program that includes destination information and command information and writes the information to a data packet. However, the data storing means, stores original picture data

that is merged with data packets from outside the data driven information processor and a packet generation unit. The data storing means also stores arithmetic processing execution results on the original picture data that is stored in the data storing means.

The program storing portion of Hatakeyama et al. does not store original picture data and arithmetic processing execution results on the original picture data. The program storing portion of Hatakeyama et al. merely receives selected data packets from an input/output controlling portion that consists of data packet from an operation processing portion and data packet forming portion. However, there is nothing in Hatakeyama et al. that includes additional data from a data storing means that consist of original picture data. Therefore, the program storing portion for storing a data flow program and reading out instruction information and a next destination information from the stored data flow program is not analogous to a data storing portion for storing original picture data and arithmetic processing execution results on the original picture data in the data storing means.

In view of the above reasons, Applicants respectfully submit that Hatakeyama et al. do not disclose or teach “a data storing means.”

Applicants further submit that the invention of Hatakeyama et al. do not disclose or teach “an arithmetic processing means for performing arithmetic processing on the data stored in the data storing means according to command information written in the packet,” as recited in claim 1.

Hatakeyama et al. disclose an operation processing portion operating on data included in the data packet outputted from a paired data generating portion, according to instruction information included in the data packet that is outputted from the paired data

generating portion. The data in the paired data generating portion has data from the program storing portion. The operation processing portion then outputs a data packet including an operation result.

The data packet in the pair data detection unit of the present invention includes a data packet from data stored in the data storing means via a data memory interface, data packet from a packet generating means, and data packet from outside the data driven information processor. The data packets are merged in a merging unit depending on information in a destination field of the data packet. The arithmetic processing means performs arithmetic processing on the data from the data storing means based in command information written in the packet. The arithmetic processing also **performs information processing based on the packet inputted from outside the data driven information processor** and the data flow program stored in the program storage unit.

However, there is nothing in the invention of Hatakeyama et al. that disclose performing information processing based on a packet that is inputted from **outside** the data driven information processor. The packet that is inputted into the operation processing portion of Hatakeyama et al. is a packet from the input data packet forming portion and not a data packet from outside the data driven information processor that was merged with data packets from a data storing portion and packet generation unit. Therefore, the operation portion of Hatakeyama et al. that operates on a data packet generated by the input data packet forming portion is not analogous to a data packet that is inputted from outside the data driven information processor.

In view of the above reasons, Applicants respectfully submit that Hatakeyama et al. do not disclose or teach “an arithmetic processing means for performing arithmetic processing on the data stored in the data storing means according to command information written in the packet.”

Accordingly Applicants respectfully request that the rejection of claim 1 should be withdrawn. Applicants respectfully submit that the rejections of claims 3-7 should be withdrawn based on their dependency and for at least the same reasons given above with regard to independent claim 1.

Conclusion

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.


In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.


Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Demetra R. Smith-Stewart (Reg. No. 47,354), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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